

and 25 are the same.

The oxygen content within the silicon dioxide layer 3, 23 is too high to allow an epitaxial layer to be grown thereon. Therefore, the silicon dioxide layer 3, 23 does not meet the claim limitation which provides that the "oxygen content of said top surface of said silicon substrate is below an amount that would prevent epitaxial growth" as defined by independent claims 1 and 29 because the oxygen content within the silicon dioxide layer 3, 23 is too high to allow epitaxial growth. Further, the increased oxygen level within the substrate 1, 21 in Hite similarly does not meet this claim limitation because the epitaxial layer 7, 27 is not formed on the substrate layer 1, 21, but instead is formed on the silicon dioxide layer 3, 23 in Hite.

Therefore, it is Applicants' position that Hite does not teach the claimed structure that includes "an epitaxial silicon layer on said top surface of said silicon substrate" where "said oxygen content of said top surface of said silicon substrate is below an amount that would prevent epitaxial growth" as defined by independent claim 1 and newly added independent claim 29. Thus, Applicants submit that independent claims 1 and 29 are not anticipated by Hite. Further, dependent claims 3, 4, 5, and 30-34 are similarly not anticipated by Hite, not only because they depend from a non-anticipated claim, but also because of the additional features of the invention they define. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

B. The 35 USC §103 Rejection Based on Hite

Applicants respectfully traverse this rejection because Hite discloses an epitaxially grown layer 7, 27 formed on a silicon dioxide layer 3, 23. The silicon dioxide layer 3, 23 has an oxygen content that is too high to allow epitaxial growth. Therefore, Hite does not teach or suggest "an epitaxial silicon layer on said top surface of said silicon substrate" where "said oxygen content of said top surface of said silicon substrate is below an amount that would prevent epitaxial growth" as defined by independent claim 1 and newly added independent claim 29.

In Hite, a non-oxygenated crystalline silicon layer 5, 25 is consumed to form the epitaxial layer 7, 27. The silicon dioxide layer 3, 23 has an oxygen content that is too high to permit

epitaxial growth which is why Hite adds the non-oxygenated crystalline silicon layer 5, 25 before growing the epitaxial layer 7, 27 (column 1, lines 40-53). Applicants note that layers 23 and 25 are not specifically described in Hite; however, Hite explains that the only difference between the structures shown in Figures 1A-1D and Figures 2A-2D relates to the omission of an annealing step (column 3, lines 2-10) thereby indicating that layers 5 and 23 are the same, and that layers 5 and 25 are the same.

The oxygen content within the silicon dioxide layer 3, 23 is too high to allow an epitaxial layer to be grown thereon. Therefore, the silicon dioxide layer 3, 23 does not meet the claim limitation which provides that the "oxygen content of said top surface of said silicon substrate is below an amount that would prevent epitaxial growth" as defined by independent claims 1 and 29 because the oxygen content within the silicon dioxide layer 3, 23 is too high to allow epitaxial growth. Further, the increased oxygen level within the substrate 1, 21 in Hite similarly does not meet this claim limitation because the epitaxial layer 7, 27 is not formed on the substrate layer 1, 21, but instead is formed on the silicon dioxide layer 3, 23 in Hite.

Therefore, it is Applicants' position that Hite does not teach or suggest the claimed structure that includes "an epitaxial silicon layer on said top surface of said silicon substrate" where "said oxygen content of said top surface of said silicon substrate is below an amount that would prevent epitaxial growth" as defined by independent claim 1 and newly added independent claim 29. Thus, Applicants submit that independent claims 1 and 29 are patentable over Hite. Further, dependent claims 2, 6, 7, and 30-34 are similarly patentable over Hite, not only because they depend from a patentable claim, but also because of the additional features of the invention they define. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

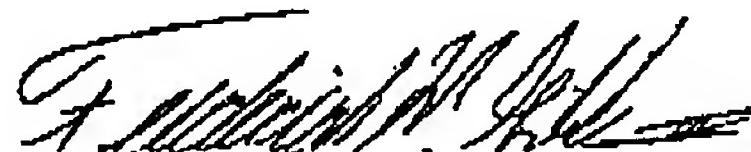
II. Formal Matters and Conclusion

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Please charge any deficiencies and credit any overpayments to Attorney's Deposit
Account Number 09-0458.

Respectfully submitted,

Dated: 8-16-05



Frederick W. Gibb, III
Reg. No. 37,629

McGinn & Gibb, P.C.
2568-A Riva Road
Suite 304
Annapolis, MD 21401
Customer Number: 29154